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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,489	06/12/2006	Isao Kitazawa	062800-0118	2136
22428 7590 10/20/2008 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
KAYES, SEAN PHILLIP				
ART UNIT		PAPER NUMBER		
2833				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/582,489

**Applicant(s)**

KITAZAWA ET AL.

**Examiner**

SEAN KAYES

**Art Unit**

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2008 and 07 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 9/30/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Individual Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Currently amended claim 1 recites two separate driving units "a driving signal supplying unit" and "a driving unit that drives the step motor". The duplicate use of the term "driving" draws into question the meaning of said term. The first driving signal supplying unit supplies a signal that provides a reference signal for clocking. This clock in turn drives the operation of the device including the step motor. It is not understood how this is separate from "a driving unit that drives a step motor". Conversely, how is a driving unit that drives the step motor not a driving signal supplying unit, in so much as the device operates in an analog electronic timepiece as per the preamble of the claim? The difference/distinction between the first driving unit and the second driving unit is not made clear in the claims. The ambiguity of the term driving as recited in the claims draws into question what the intended meaning of the term is.

4. The meaning of the phrase "to control a signal line of the driving unit for driving the step motor to be open in the non-hand-driven state" is not understood. Paragraphs 87-88, and 90 refers to the term "open" as pertaining to the region of the dotted lines in figure 5. Figure 5 depicts a plurality of signals. A unified theme setting forth a proper

definition of the term "open" according to the appropriate regions is not therein set forth. The meaning of "open" as it applies to circuit design generally refers to a broken circuit wherein no signal can be transmitted there through. The depiction of figure 5 and the discussion of paragraphs 87-90 does not support such an interpretation. The meaning of "open" as it might pertain to motor control, particularly in light of the depiction of figure 5 suggests that applicant is intending to state that the motor is controlled to be OFF. The interpretation while logically consistent does not make sense in the context of applicant's arguments. Applicant states that the claim language in question is not disclosed or suggest by Nakajima. This assertion confuses the matter. If the claim language (currently at issue) means that the motor is controlled to be OFF than the motor would necessarily be in a non-hand-driven state, as per the claim language. This raises the question, how could any motor driving a hand ever not meet the limitation of being controlled to be OPEN/OFF when in a non-hand-driven state? If the motor is OFF, than it is not driven and vice versa.

5. One of ordinary skill in the art would not be enabled to understand the corresponding scope of the claims given the ambiguity of the terms "open" and "driving" as discussed.
6. Claims 2-19 depend from claim 1.
7. As currently amended claim 15 contradicts the limitations of claim 12 from which is depends. Claim 15 recites the two separately recited resistors are now a single resistor. The recitation of claim 15 negates the recitation of claim 12 which previously requires the elements to be separate.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The rejection of claims 1-3 and 6-17 under 35 USC 102(b) as being anticipated by Nakajima (US 4404510) is maintained.

10. Newly presented claims 18 and 19 are herein rejected under 35 USC 102(b) as being anticipated by Nakajima (US 4404510).

The subject matter of claims 18 and 19 has been previously addressed in the rejections to claims 1, 9, and 12.

***Response to Arguments***

11. Applicant's arguments filed 7/7/2008 and 8/28/2008 have been fully considered but they are not persuasive.

12. Applicant asserts that Nakajima fails to teach impact detecting "... based on an output signal level of a counter electromotive force generated by a step motor." This argument is not persuasive. Nakajima teaches detection of the impact based on step motor output 5-6 figure 1 and 12-13 figure 2.

13. Applicant asserts that Nakajima fails to teach "a controlling unit controls a signal line of a driving unit for driving the step motor to be open in a non-hand-driven state." As

discussed in the 112 rejection the meaning of this language is not readily understood. In so much as the language "open" could refer to the motor being off (see discussion in 112 rejection) it is not understood how this language would distinguish in view of Nakajima. If the motor were in a non-hand-driven state than the motor would be off.

14. Applicant asserts that the limitations of claim 10 are not taught. In support of this assertion applicant makes reference to figure 8 and the "corresponding description of that figure in the specification." This argument is not persuasive. It is not clear what aspect of figure 8 applicant is referring to. The discussion of paragraph 51 page 22 does not clarify the issue. Paragraph 51 does not mention stable terms relating to the language of claim 10.

15. Applicant asserts that Nakajima fails to teach a "chopper-amplifying unit" as recited in claim 2. This argument is not persuasive. Applicant's use of the phrase chopper-amplifying unit is vague. Applicant has disclosed a box with the words "chopper amplification waveform shaping circuit" 118 figure 14. Applicant appears to now be asserting a specific structure. It is not clear what disclosed structure of this rectangle applicant is associating with the term "chopper amplifying unit". It is not clear what structure this "unit" is necessitated to require that isn't met by the disclosure of Nakajima. The structure of Nakajima's device provides a chopped amplified signal see figures 4-7. If applicant intends to constrain the claims to a particular structure different from that which results in such a signal than the claims should positively recite the limitations.

16. Applicant asserts that Nakajima fails to teach the limitations of claim 12 because the cited figures 10(1)-10(4) pertain to different configurations of the driving circuit. This argument is not persuasive. The figures 10(1)-10(4) do pertain to the driving of the motor. These resistors form a portion of the driving circuit (as per applicant's comments.) These resistors are likewise integral to the operation of the impact detection circuit. As discussed in column 6 lines 19-57 the operation of impact detection is proportional to the operation of the resistors in figure 10(1)+. The resistors detect the impact of the device as per the operational limitations of the claim. The reference to these resistors is deemed relevant as they are resistors and they do behave as claimed. They pertain to a portion of the structure which dictates the functional operation of the device as claimed. Nakajima does not separately depict resistors pertaining solely to the impact detection circuit/unit, but such resistors are necessary and inherent in the structure for performing the disclosed functionality. Moreover, claim 15 clearly sets forth that resistors of one unit can be understood to correspond to resistors of another unit.

17. Applicant asserts that the limitations of claim 15 are not taught by Nakajima because the resistors of figure 10(1)-10(4) pertain to the driving unit. This argument is not persuasive. Claim 15 recites the impact detecting resistor and the load compensating resistor are the same resistor. The two resistors were previously recited in claim 12 to pertain to two separate units. If the two resistors can be a single resistor pertaining to two different units than why cannot the resistors of the driving unit be understood to pertain to more than the driving unit? The very nature of the limitation of claim 15 precludes the persuasiveness of applicant's argument in this regard. If the

resistors can be understood to correspond more than one unit, than the resistors can be understood to correspond to more than one unit (i.e. the driving unit). The device is an electronic device wherein the electrical properties of any given unit are dependent on the electrical properties of the other to which it is connected. A resistor of a single unit affects the operation and design of the other units of the device.

### ***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN KAYES whose telephone number is (571) 272-8931. The examiner can normally be reached on 11:00am to 9:00pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Felix O. Figueroa/  
Primary Examiner, Art Unit 2833

SK  
10/3/2008